

CLAIMS

What is claimed:

1. An optical fiber enclosure, comprising:
a housing having a front compartment and a bulkhead;
a plurality of optical adapters mounted to the bulkhead;
at least one optical coupler connector assembly coupled to at least
one of the plurality of adapters.
2. The optical fiber enclosure of Claim 1 wherein the optical coupler
connector assembly includes an optical coupler adjacent to a ferrule in
the optical connector.
3. The optical fiber enclosure of Claim 1 wherein the optical coupler
connector assembly further comprises at least two output ports.
4. The optical fiber enclosure of Claim 1 further comprising the optical
coupler connector assembly located in each port in the enclosure.
5. The optical fiber enclosure of Claim 1 wherein the bend radius of the
optical coupler connector assembly does not exceed approximately 1.5
inches.
6. An optical monitoring device comprising:
an optical connector having at least one output port; and
an optical coupler integral with the optical connector.
7. The optical monitoring device of Claim 6 wherein the optical coupler is
integrated adjacent to a ferrule in the optical connector.

8. The optical monitoring device of Claim 6 further comprising a bend radius such that the device when coupled to an adapter in a conventional panel requires no additional frame space.

5 9. The optical monitoring device of Claim 8 wherein the bend radius does not exceed approximately 1.5 inches.

10 10. An optical network system comprising:
a patch panel having a housing, the housing having a front compartment and a bulkhead, the bulkhead having a plurality of adapters; and
at least one optical coupler-connector assembly coupled to at least one of the plurality of adapters.

15 11. The optical network of Claim 10 further comprising a gigabit Ethernet.

12. The optical network system of Claim 10 wherein the optical coupler-connector assembly includes an optical coupler adjacent to a ferrule in the optical connector.

20 13. The optical network system of Claim 11 wherein the optical coupler connector assembly further comprises at least two output ports.

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25 14. An optical tap, comprising:
an optical connector having at least one output port; and
an optical coupler integral with the optical connector.

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15. The optical tap of Claim 14 wherein the optical coupler is integrated adjacent to a ferrule in the optical connector.

16. The optical tap of Claim 14 further comprising a bend radius such that the device when coupled to an adapter in a conventional panel requires no additional frame space.
- 5 17. The optical tap of Claim 16 wherein the bend radius does not exceed approximately 1.5 inches.
- 10 18. The optical tap of Claim 14 wherein the optical coupler comprises a quartz substrate.
- 15 19. The optical tap of Claim 14 wherein the optical coupler comprises a glass waveguide.
- 20 20. The optical tap of Claim 19 further comprising at least one channel for at least one of splitting and coupling an optical signal into a plurality of outputs.
21. A wavelength division multiplexing assembly, comprising:
an optical connector having at least one output port; and
an optical coupler integral with the optical connector.
22. The wavelength division multiplexing assembly of Claim 21 wherein the optical coupler is integrated adjacent to a ferrule in the optical connector.
- 25 23. The wavelength division multiplexing assembly of Claim 21 further comprising a bend radius such that the device when coupled to an adapter in a conventional panel requires no additional frame space and the bend radius does not exceed approximately 1.5 inches.

24. An optical power splitter, comprising:
an optical connector having at least one output port; and
an optical coupler integral with the optical connector.
- 5 25. The optical power splitter of Claim 24 wherein the optical coupler is
integrated adjacent to a ferrule in the optical connector.
26. The optical power splitter of Claim 24 further comprising a bend radius
such that the device when coupled to an adapter in a conventional panel
requires no additional frame space.
- 10 27. A method of fabricating an optical tap device, comprising the steps of:
fusing an optical coupler into a connector ferrule;
joining the ferrule to a fiber to result in a fiber coupler-connector
assembly;
15 curing the fiber coupler-connector assembly; and
providing a protective shroud over the assembly.
28. An optical connector for coupling optical data signals, comprising:
a connector and splitter portion;
at least a pair of optical cables extending from the connector and
splitter portion; and
an optical connector at the distal end of each of the optical cables
from the connector and splitter.
- 20 29. The optical connector of Claim 28 wherein the connector and splitter
portion includes a coupler connector for joining at least one optical cable
to a primary optical cable.
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30. The optical connector of Claim 29 wherein the connector and splitter portion has a ferrule and outer connection for connecting to an adapter of an optical fiber cassette.

5 31. The optical connector of Claim 28 wherein a first optical cable carries data at 1550 nm wavelength and a second optical cable carries data at 1310 nm wavelength.

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